

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/002957

International filing date (day/month/year)
08.07.2004

Priority date (day/month/year)
12.07.2003

International Patent Classification (IPC) or both national classification and IPC
H05B3/14, H05B3/06

Applicant
INDITHERM PLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/GB2004/002957

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/002957

Re Item V.

1. The following document is referred to in this communication:

D1 : WO 00/34959 A (GRADY PATRICK JAMES O ; PJO INDITHERM LTD
(GB)) 15 June 2000 (2000-06-15)

2. The present application appears to meet the requirements of Article 33(2) PCT, because the subject-matter of claims 1-10 appears to be new.

3. The present application appears to meet the requirements of Article 33(3) PCT, because the subject-matter of claims 1-10 appears to involve an inventive step.

4. The industrial applicability of the subject-matter of claims 1-10 appears to be evident. Consequently the claims 1-10 fulfill the requirements of Article 33(4) PCT.

5. Nevertheless, some **major** unclarities appear to be met in the claims, a definitive positive statement cannot therefore be made (Art. 6 PCT)

- 5.1 With regard to Article 6 PCT the following remarks relative to claim 1 can be done:

- 5.1.1 The relative terms (i) "**semi**-conductive", (ii) "having a flexibility **compatible**", (iii) "having strength characteristics **greater**" have no well-recognised meaning and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby rendering the definition of the subject-matter of said claims unclear, Article 6 PCT.

A clarification of point (i) is to be found in claim 1 of D1.

A brief statement of what is a semi-conductive material as prior art must be included in the present application.

A possible description of item (ii) can for example be found in claim 3.

A possible solution of item (iii) is to found in claim 2, first part: the supplementary rails are a braid formed from conductive wires.

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5.1.2 It is clear from the description on page 4, line 22- page 5, line 1 or claim 6 that the following features are essential to the definition of the invention:

The situation of the rails vis à vis the sheet must be precised to understand what kind of construction is this material.

Since independent claim 1 does not contain these features it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

Same kind of remark arises when it comes to the nature of the material, it must be stated that this material is a heater, otherwise it is not clear in which field this material applies leading to non possible vision of what the good constructional features are.

5.2 Regarding claim 3, it must be noted that it is written "the first rails", so this independent claim is related to claim 1 and as such is dependent from claim 1. A clear dependency must be therefore be implemented, adding "in sheet form as in claim 1 "

5.3 Claim 2 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim attempts to define the subject-matter in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result.

See particularly: "the wire diameters being of a size that affords considerable individual flexibility, but relatively low strength, but which when interwoven with other wires, forms a braid that has a flexibility that is commensurate with the flexibility of the sheet of semi-conductive material and the first rails".